



A.D. 1834 N° 6654.

S P E C I F I C A T I O N

OF

EDMUND YOULDON.

APPARATUS FOR VENTILATING CHIMNEYS.

L O N D O N :

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:

PUBLISHED AT THE QUEEN'S PRINTING OFFICE, EAST HARDING STREET,

NEAR FLEET STREET.

Price 6d.

1854.



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Apparatus for Ventilating Chimneys.

YOULDON'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, EDMUND YOULDON, of Exmouth, Schoolmaster, send greeting.

WHEREAS His present most Excellent Majesty King William the Fourth, by His Letters Patent under the Great Seal of Great Britain, bearing date at
5 Westminster, the Fifth day of August, in the fifth year of His reign, did, for Himself, His heirs and successors, give and grant unto me, the said Edmund Youldon, His especial licence, full power, sole privilege and authority, that I, the said Edmund Youldon, my exors, admors, and assigns, or such others as I, the said Edmund Youldon, my exors, admors,
10 or assigns, should at any time agree with, and no others, from time to time and at all times during the term of years therein expressed, should and lawfully might make, use, exercise, and vend, within England, Wales, and the Town of Berwick upon Tweed, my Invention of "IMPROVEMENTS IN PREVENTING OR CURING WHAT ARE TERMED SMOKEY CHIMNEYS;" in which said Letters Patent is
15 contained a proviso that I, the said Edmund Youldon, shall cause a particular description of the nature of my said Invention, and in what manner the same is to be performed, to be inrolled in His said Majesty's High Court of Chancery within two calendar months next and immediately after the date of the said in part recited Letters Patent, as in and by the same, reference being there-
20 unto had, will more fully and at large appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said Edmund Youldon, do hereby declare the nature of my said Invention, and the manner in which the same is to be performed, are fully described and ascertained in and by the following description thereof, reference being had to
25 the Drawing hereunto annexed, and to the figures and letters marked thereon, that is to say:—

Youldon's Improvements in Preventing or Curing Smoky Chimneys.

DESCRIPTION OF THE DRAWING.

Figure 1 represents an apparatus constructed according to my improvements. Figure 2 is a vertical section thereof; Figure 3 is a transverse section thereof; and Figures 4 and 5 show detached parts of the same. In each of these Figures the same letters of reference indicate similar parts, *a* being the outer casing of 5 zinc or other suitable material. *b, b*, are openings formed for the passage of air and smoke; these openings are covered in one direction by the curved plates or wind guards *c, c*, the object of which will be hereafter described. *d, d*, are four curved vanes affixed to the axis or shaft *e*; these curved vanes are also affixed to the hoops or stays *f, f*, for the purpose of keeping them in 10 their proper positions, as shewn in the Drawing. The shaft or axis *e* turns in bearings at *g, g*, there being a box or cover to prevent the smoke or dirt getting to the point of bearing; on to the axis *e* is affixed a toothed wheel, which takes into and drives the pinion on the shaft *h*, which also turns in bearings at the points *g, g*, as shown in the Drawing, these bearings being supported by 15 the cross framings *i* within the casing *a*, and the upper one by the cover *j*, for it will be seen that there is no passage for the air and smoke to pass at top other than by the openings *b, b*, which I prefer should be the case; on the axis *h* is affixed a circular fan or wheel *k*, shown separately at Figure 4; this circular fan is constructed similarly to those used for smoke jacks and for ventilators. 20 *e* is a stop, which fills up that part of the outer casing *a* which is not occupied by the fan wheel *k*, and thus is prevented the passage of smoke, except between the vanes or spokes of the fan wheel *k*. Figure 5 represents a plate of zinc, which is the material I commonly use, but do not confine myself thereto, as any other suitable material may be employed. This plate of zinc has eight open- 25 ings *b* formed therein, whilst the part of the metal which is cut to form the opening is curved, as shown in the Drawings, and thus form wind guards to the openings, by which the wind is prevented entering such openings excepting in certain directions, by which means only about three of the openings will be open to receive the wind, whilst the other openings may be said to be the tail 30 part of the mill, through which the wind that actuates the vanes *d, d*, will again pass off, carrying with it any smoke which may be in the upper part of the apparatus.

Having thus described the various parts of the apparatus, I would remark, that it will be evident that the wind, in whatever direction it may blow, will be 35 entering some of the openings *b*, and thereby actuating the vanes *d*, and cause the axis *e* to turn, and by the wheel work give an encreased motion to the fan wheel *k* on the axis *h*, and the vanes being set in a proper direction will, by its

FIG. 1.

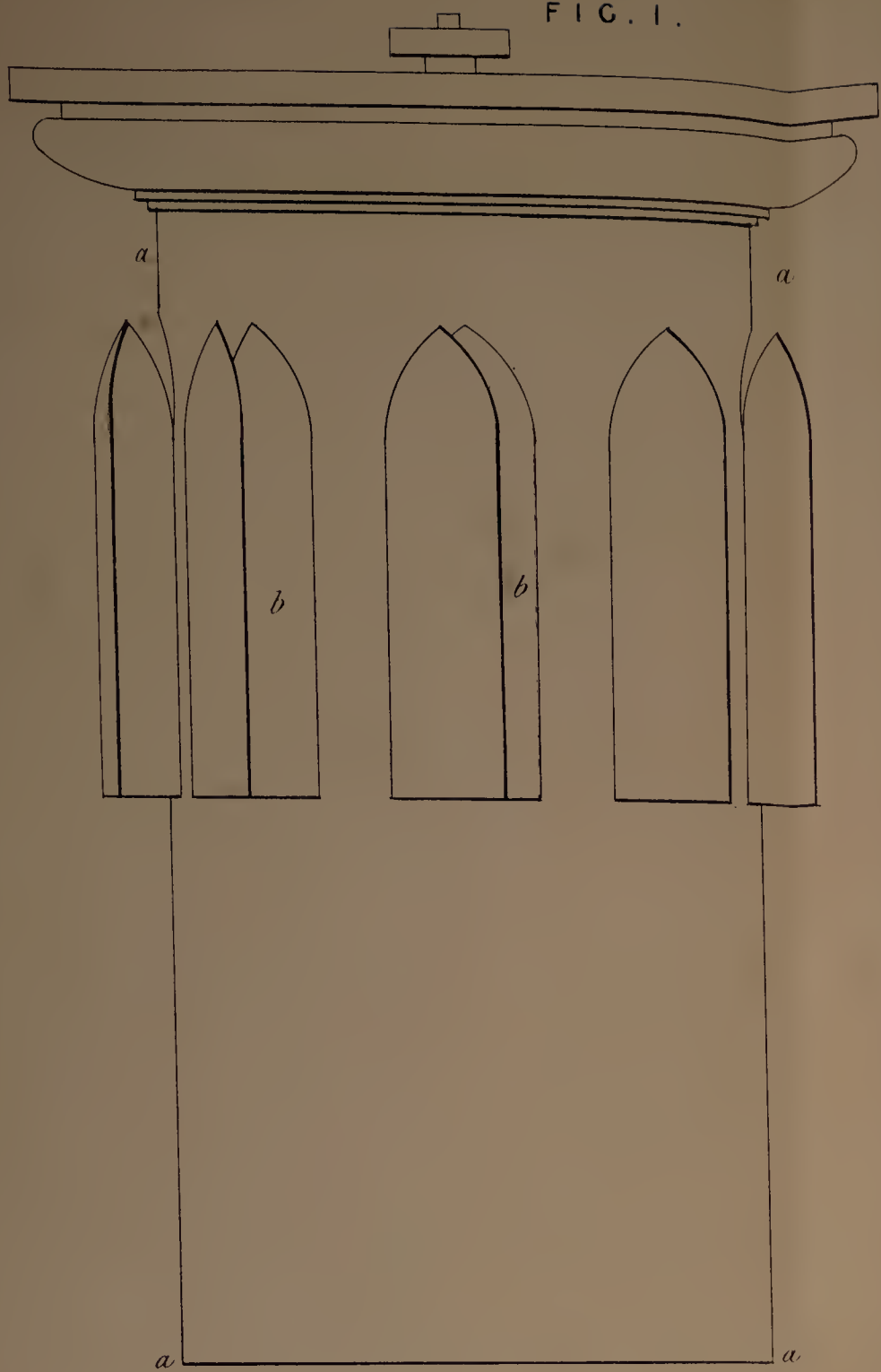


FIG. 2.

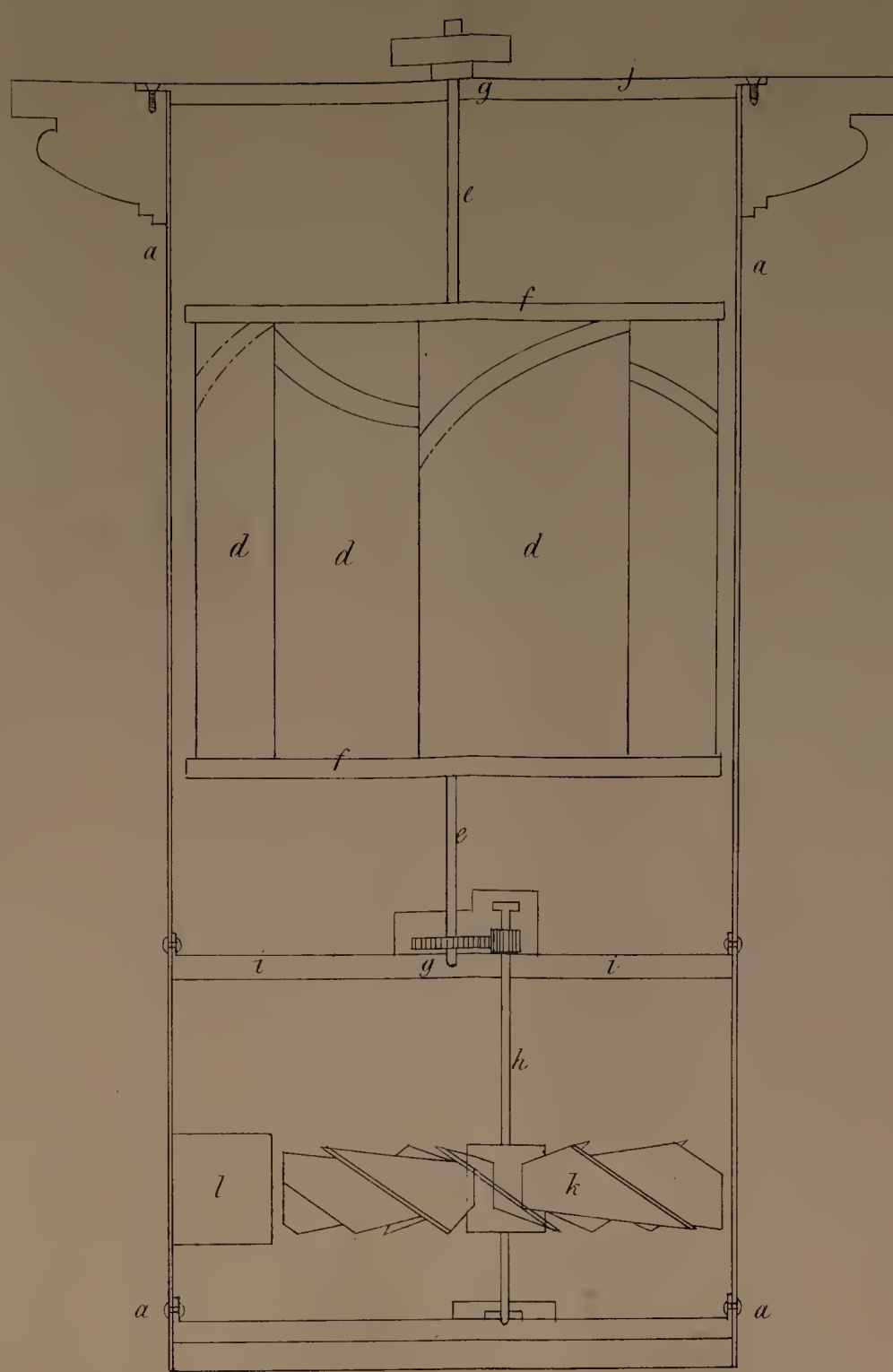


FIG. 3.

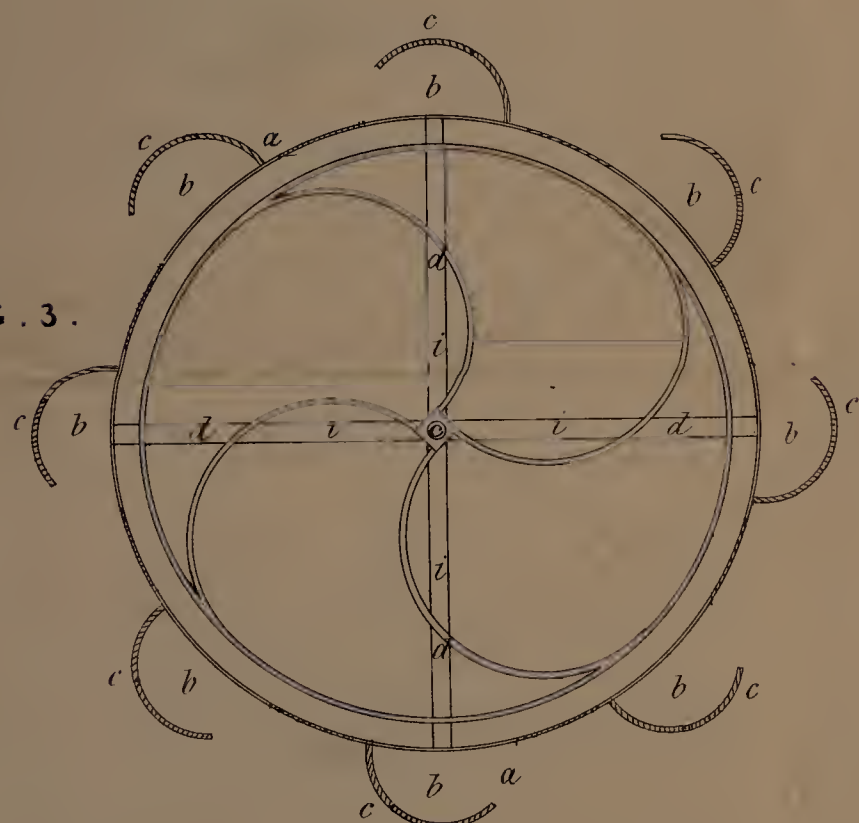


FIG. 4.

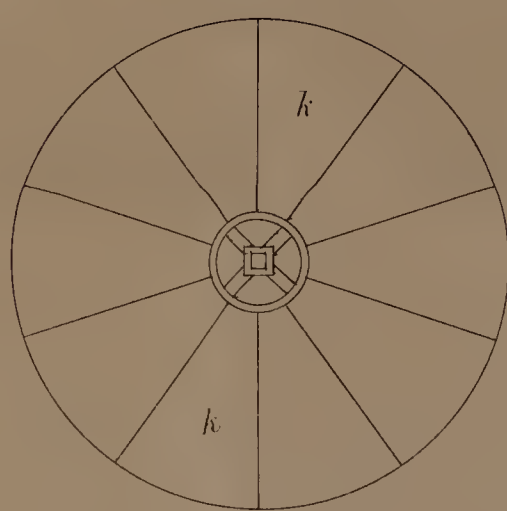
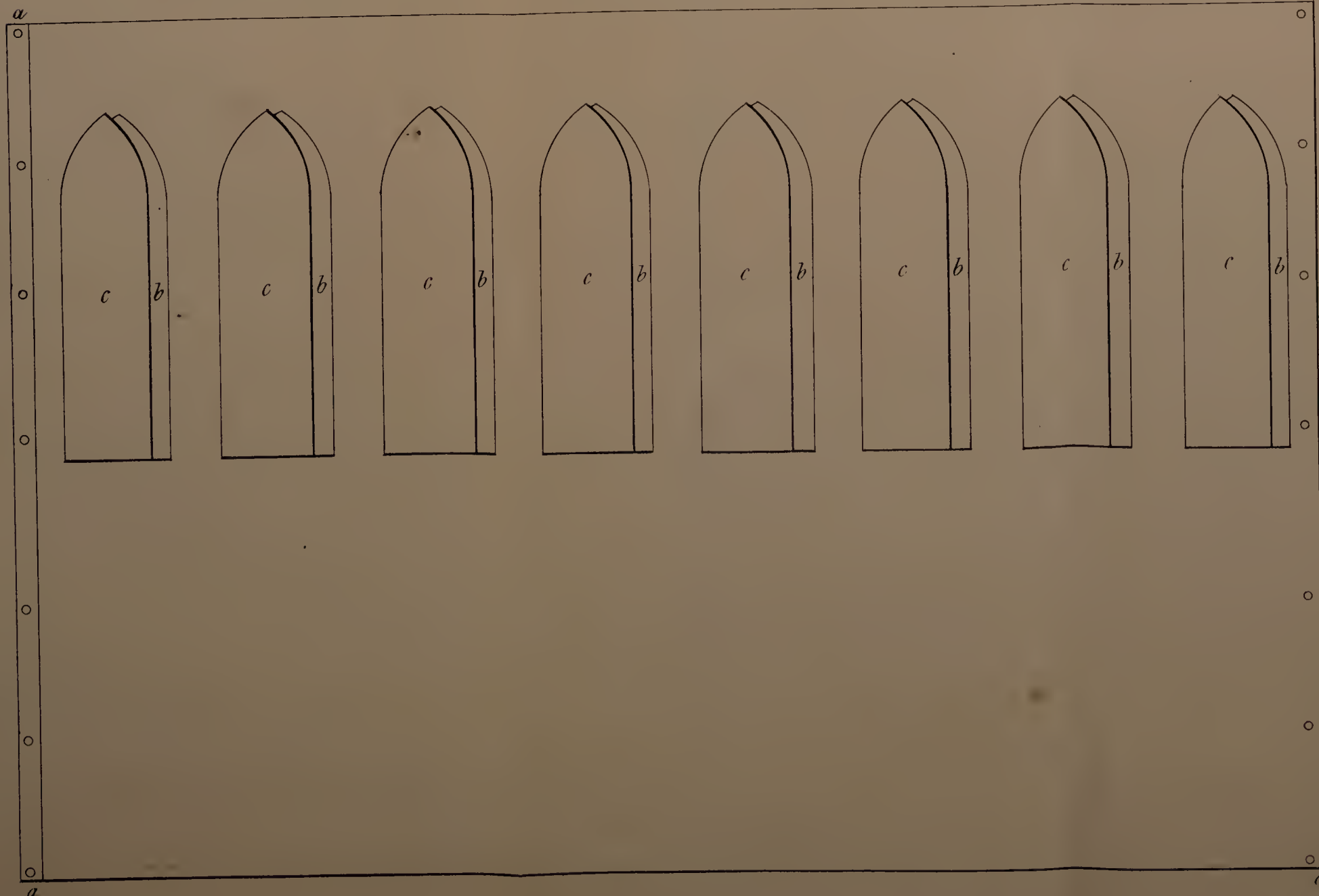


FIG. 5.



The enrolled drawing is colored.

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Youlton's Improvements in Preventing or Curing Smoky Chimneys.

rapid revolution, create an exhaustion below and a consequent draft to the chimney on which this apparatus is fixed.

I would also remark that I am aware that fan wheels have been before used similar to the one I have described for producing a draft in chimneys. I do
5 not, therefore, claim the production of a draft by such means, and it will be desirable to state that I do not lay claim to any of the parts separately, nor do I confine myself to having two shafts for the vanes *d* and the fan *k*, as it will be evident that they may be both attached to one, though I prefer that the fan wheel *k* should have a faster revolution than the vanes *d*, as above
10 described.

Having now described the nature of my Invention, and the manner of using the same, I would have it understood that what I claim as my Invention is, the combining the action of the vanes *d* with the fan wheel *k*, whereby the wind, in giving motion to the vanes *d*, cause the fan wheel *k* to create an exhaustion
15 below it and a consequent draft up the chimney, and thus prevent or cure what are termed smokey chimnies.

In witness whereof, I, the said Edmund Youlton, have hereunto set my hand and seal, this Thirtieth day of September, in the year of our Lord One thousand eight hundred and thirty-four.

20


EDMUND (L.S.) YOULTON.

AND BE IT REMEMBERED, that on the Second day of October, in the year of our Lord 1834, the aforesaid Edmund Youlton came before our said Lord the King in his Chancery, and acknowledged the Specification aforesaid, and all and everything therein contained and specified, in form above written.
25 And also the Specification aforesaid was stamped according to the tenor of the Statute made for that purpose.

Inrolled the Fourth day of October, in the year of our Lord One thousand eight hundred and thirty-four.

LONDON :

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1854.



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